

PATENT COOPERATION TREATY
PCT
INTERNATIONAL SEARCH REPORT
(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 119469	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/AU2004/001428	International filing date (day/month/year) 20 October 2004	(Earliest) Priority Date (day/month/year) 20 October 2003
Applicant NAUTITECH PTY LTD et al		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. **Certain claims were found unsearchable** (See Box No. II).

3. **Unity of invention is lacking** (See Box No. III).

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is **Figure No. 2**

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b. none of the figures is to be published with the abstract.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/001428

Box No. IV Text of the Abstract (Continuation of item 5 of the first sheet)

Stand alone decoupling clutch (10) is used in drive shafts, eg of watercraft. Clutch (10) is separate from any gearbox, etc, does not change the direction of rotation of the drive shaft, and has a single clutch area which allows slippage at any speed or torque. Electronic control system (44) controls slippage of clutch (10) providing for low speed operation, high energy launches, driveline protection, etc. Slip speed is controlled by sensing input shaft speed (38) and output propeller speed (40) and altering hydraulic pressure accordingly on a clutch-compressing piston by opening direct-acting, high flow, electro-hydraulic solenoids (36).

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/001428

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. 7: B63H 23/30, F16D 48/06, 25/0638

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Refer to electronic databases consulted below.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Derwent World Patent Index and USPTO and esp@ce Internet sites: using keywords: clutch, control, regulate, vary, slip, engage, shaft, speed, rpm, revs and similar terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, Y	US 5474480 A (SCHWARZ et al) 12 December 1995 See whole document, but in particular lines 39-48 of column 3 and lines 15-25 of column 4.	1-8
X, Y	US 3548987 A (ERICKSON et al) 22 December 1970 See whole document.	1-8
X, Y	US 4305710 A (SCHNEIDER) 15 December 1981 See whole document.	1-8

Further documents are listed in the continuation of Box C See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
26 November 2004

Date of mailing of the international search report

6 DEC 2004

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2004/001428

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
US	5474480	DE	4125432	EP	595977
US	4305710	DE	3022075	GB	2053385

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX

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